



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

u

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/608,632	06/30/2000	Rajesh R. Shah	219.38572X00	9379

20457 7590 09/29/2003

ANTONELLI, TERRY, STOUT & KRAUS, LLP  
1300 NORTH SEVENTEENTH STREET  
SUITE 1800  
ARLINGTON, VA 22209-9889

EXAMINER
----------

ANYA, CHARLES E

ART UNIT	PAPER NUMBER
----------	--------------

2126

DATE MAILED: 09/29/2003

4

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/608,632

Applicant(s)

SHAH, RAJESH R.

Examiner

Charles E Anya

Art Unit

2126

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 July 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1,3-5 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 6,529,963 B1 to Fredin et al. in view of U.S. Pat. No. 5,991,830 to Beard et al.**

As to claim 1, Fredin teaches a host coupled to an interconnection fabric that includes one or more fabric-attached I/O enclosures (figures 4 – 9), assigning an I/O controller to the host (Fibre Channel Adapters 412 Col. 4 Ln. 17 – 65, Adapters 516 and 518, Col. 5 Ln. 43 – 53, PCI Bus Adapter 812-2 Col. 9 Ln. 30 – 37).

Fredin is silent with respect to sending a verification message to the I/O enclosure to determine whether a communication path exists and thereafter loading a driver into the host.

Beard teaches sending a verification message to the I/O enclosure to determine whether a communication path exists and thereafter loading a driver into the host (“...logical device address is receive...If the device driver does not exist...” Col. 8 Ln. 22 – 67). It would have been obvious to apply the teaching of Beard to the system of

Fredin. One would have been motivated to make such a modification in order **enable** peripheral devices (Col. 9 Ln. 19 – 23).

As to claim 4, Fredin teaches determining whether a remote fabric adapter in the I/O enclosure has been initialize and thereafter determining whether the communication path exists (LIP Col. 10 Ln. 22 – 67, "...After...initialization..." Col. 11 Ln. 1 – 25).

As to claims 3 and 5, see the rejection of claim 4.

As to claim 20, see the rejection of claims 1 and 4.

**Claims 2,6-19 and 21-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 6,529,963 B1 to Fredin et al. in view of U.S. Pat. No. 5,991,830 to Beard et al. as applied to claim 1 above, and further in view of U.S. Pat. No. 6,256,740 B1 to Muller et al.**

As to claim 2, Fredin as modified is silent determining whether a host-fabric adapter in the host has been initialized before loading a driver. Muller teaches determining whether a host-fabric adapter in the host has been initialized before loading a driver ("...FindController()...HIM\_Initialize()..." Col. 12 Ln. 28 – 67). It would have been obvious to apply the teaching of Muller to the system of Fredin as modified. One would have been motivated to make such a modification in order to "Configure, Initialize and Send I/Os to the adapter" (Col. 12 Ln. 61 – 67).

As to claim 6, claims 1 and 2 covers claim 6 except for determining a list of drivers that correspond to the plurality of I/O controllers to be loaded and modifying the list of drivers.

Art Unit: 2126

Fredin as modified is silent with respect for determining a list of drivers that correspond to the plurality of I/O controllers to be loaded and modifying the list of drivers.

Muller teaches determining a list of drivers that correspond to the plurality of I/O controllers to be loaded (“...space.c file...” Col. 9 Ln. 57 – 67, Col.10 Ln. 1 – 27) and modifying the list of drivers (“...new version...” Col. 9 Ln. 57 – 67, Col.10 Ln. 1 – 27). It would have been obvious to apply the teaching of Muller to the system of Fredin as modified. One would have been motivated to such modifications to provide JBOD and SCSI configuration (Col. 9 Ln. 57- 67, Col. 1 – 27).

As to claim 7, although Fredin as modified is silent with respect to receiving an interrupt before modifying the list of drivers this limitation is inherent because for a processor to process a request (modifying the list of drivers) an interrupt for the processor time must first be received.

As to claims 8 and 9, see the rejection of claim 6

As to claim 10, although obtaining the list of drivers from a storage is not explicitly taught it is inherent that the drivers has to be loaded from a storage medium since drivers are conventionally stored and loaded from a storage medium.

As to claim 11, Fredin teaches receiving a response that confirms the completion of local channel adapter, remote channel adapter port and forwarding tables initialization (“...initialization process...” Col. 10 Ln. 29 – 35).

As to claim 12, Fredin is silent with respect to notifying the fabric control driver when host-fabric adapter ports are configured and ready for fabric connectivity.

Art Unit: 2126

Muller teaches notifying the fabric control driver when host-fabric adapter ports are configured and ready for fabric connectivity (“...Send I/O...” Col. 12 Ln. 61 – 67: NOTE: the fabric control driver/HIM would have been notified of connectivity and readiness since I/O requests are sent to the adapters). It would have been obvious to apply the teaching of Muller to the system of Fredin as modified. One would have been motivated to make such a modification in order to “Send I/Os to the adapter” (Col. 12 Ln. 61 – 67).

As to claims 13 – 18, see the rejection of claims 6 – 11 respectively.

As to claims 19 and 22, see the rejection of claim 12.

As to claim 21, claim 2 covers claim 21 except for an interconnection fabric that includes forwarding table for forwarding data.

Fredin teaches the interconnection fabric that includes forwarding table for forwarding data (“...routing table...” Col. 4 Ln. 50 – 65, Col. 11 Ln. 15 – 67, Col. 12 Ln. 1 – 13).

As to claims 23 and 24, see the rejection of claims 2 and 12.

As to claim 25, see the rejection of claim 2.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 1 – 25 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles E Anya whose telephone number is (703) 305-3411. The examiner can normally be reached on M-F (8:30-5:30) First Friday off.

The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Charles E Anya  
Examiner  
Art Unit 2126



**JOHN FOLLANSBEE**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2100**